

II

110224

URBAN DISTRICT OF HUNSTANTON

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

for the year ended DECEMBER 31st, 1963.



Local Health Office,
Church Street,
Wells-next-the-Sea,
Norfolk.

HUNSTANTON URBAN DISTRICT COUNCIL

PUBLIC HEALTH DEPARTMENT

Medical Officer of Health

DR. ANDREW A.G. CARSON, M.B., B.Ch., B.A.O., D.P.H.

Local Health Office,
Church Street,
Wells-next-the-Sea,
Tel. Wells 262.

Public Health Inspector

W.L.C. PROUD, H.R.S.H., M.A.P.H.I., Cert. S.I.B.

Council Offices,
Hunstanton.
Tel. Hunstanton 517.



Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b29442382>

Public Health and Housing Committee

Chairman	--	Cllr. P. Hartnell
Vice-Chairman	--	Cllr. Miss O.L. Burness
Members	--	Cllr. T.W.H. Burton
	--	Cllr. W.T. Case
	--	Cllr. J.F. Fleming
	--	Cllr. J.M. Humphry
	--	Cllr. D.J. Insley
	--	Cllr. G. Richmond
Ex-Officio Members	--	Cllr. K.J. Bolton Chairman of the Council
	--	Cllr. T.C.R. Legge Chairman of the Enter- tainments Committee
	--	Cllr. W. Paterson Chairman of the Finance Committee
	--	Cllr. G.L. Cracknell Chairman of the General Purposes Committee

HUNSTANTON URBAN DISTRICT COUNCIL

Report of the Medical Officer of Health
for the year ended 31st December, 1963.

Mr. Chairman, Ladies and Gentlemen,

I have the honour to submit my report on the Public Health for the year 1963. This report incorporates that of the Public Health Inspector. In addition to the normal duties of his office, the Public Health Inspector is responsible for the supervision of the collection and disposal of refuse, cleansing of the sea-front, cleansing and maintenance of public conveniences, maintenance of council houses and administration of the Petroleum Acts and Regulations.

The Registrar General's estimate of the mid-year population was 3,810 compared with 4,900 in the previous year, which is a big drop. At the same time, the number of inhabited houses went up from 1,374 to 1,501.

The corrected death rate for the district was 11.22 per 1,000 estimated population compared with 11.23 for the Administrative County and 12.20 for England and Wales. As usual, diseases of the heart and blood vessels caused the highest number of deaths - 68.4% of the total. There were no maternal deaths in the district.

Fluoridation of water supplies was a much discussed and debated topic in 1963. In Section III (page 13) there is a summary from the Ministry of Health's report on the "conduct of fluoridation studies in the United Kingdom and the results achieved after five years." It is noteworthy that the Eire Supreme Court in Dublin, on Friday, 3rd July, 1964, declared the Health (Fluoridation of Water Supplies) Act, 1960, of that Country, to be constitutional and the appeal of Mrs. Gladys Ryan, of Grace Park Road, Drumcondra, Dublin, was dismissed with costs against her. In the course of giving judgment, the Chief Justice, Mr. Justice Cearbhall O'Dalaigh, said that the question of dental caries had become a national problem in Eire. It could result not only in damage to the teeth themselves but through them might be injurious to general health. The State was organized for the common welfare of all its citizens and had a duty of protecting the citizens from dangers to health in a manner not incompatible or inconsistent with the rights of those citizens as human persons. The Court did not accept that the fluoridation of water, was, or could be described as the mass medication or mass administration of "drugs" through water. It was a misuse of words to refer to the process in such terms.

I have no doubt that, in time, fluoridation will be recognised and accepted in this Country.

The effect of smoking on health and, in particular, its relation to the rise in lung cancer was another topic in the news.

Comparisons of mortality from lung cancer in smokers and non-smokers show that smokers have a very much higher mortality than non-smokers, and in the case of heavy smokers (i.e. those who smoke in excess of 40 cigarettes a day) it is as much as seventy times as high.

There is also a clear association between cigarette smoking and coronary thrombosis, and in heavy smokers it is much higher than in non-smokers.

Lest one may say that he has been smoking for years and has run the risk anyway and that it is too late to stop smoking now, let me assure them that this is not so. There is no doubt that the risk of lung cancer is reduced whenever one gives up smoking.

Cigar and pipe smoking are less dangerous probably because they burn at a very much lower temperature than cigarettes. The temperature at the tip of a burning cigarette is around 900°C.

I should like to express my thanks to the Committee for their support and to the Staffs of the Public Health Department and the Local Health Office for their help in the compilation of this report.

I have the honour to be,

Your obedient Servant,

ANDREW A.G. CARSON, M.B., B.Ch., B.A.O., D.P.H.
Medical Officer of Health

SECTION I

GENERAL STATISTICS

Area and Population

The District covers 1,498 acres, including 434 acres of foreshore.

The Registrar General's estimated mid-year home population in 1963 was 3,810 compared with 4,900 in 1962 - a decrease of 1,090.

The number of live births was 69, whilst the number of deaths was 57, representing a natural increase of 12.

The number of inhabited houses in the District was 1,501, compared with 1,374 in 1962.

The Rateable Value of the District was £206,262 and the product of a penny rate was £810.

METEOROLOGICAL FACTORS

The data, acquired by courtesy of the R.A.F. West Raynham, is shown in the table below. The figures in brackets being the corresponding figures for 1962.

Month	Mean daily maximum Temp (°F)	Mean daily minimum Temp (°F)	Mean daily temperature (°F)	Total rainfall Inches.	Mean relative humidity
Jan.	31.5 (43.2)	23.9 (34.2)	27.7 (38.7)	1.19 (2.02)	86.75 (89.5)
Feb.	33.4 (43.2)	24.4 (34.5)	28.9 (38.9)	.79 (1.44)	89.75 (83.75)
Mar.	48.0 (42.3)	35.4 (30.0)	41.7 (36.1)	3.35 (1.43)	89.25 (82.0)
April	53.8 (51.3)	39.6 (38.7)	46.7 (45.0)	2.05 (2.35)	87.0 (81.75)
May	57.5 (55.6)	41.9 (42.6)	49.7 (49.1)	2.34 (2.50)	82.0 (81.25)
June	65.5 (64.4)	49.5 (46.8)	57.5 (55.6)	1.51 (0.71)	83.25 (73.25)
July	66.9 (64.0)	50.0 (49.8)	58.5 (56.9)	1.93 (2.48)	82.25 (82.75)
Aug.	63.3 (65.3)	49.8 (49.8)	56.5 (57.5)	4.73 (3.0)	89.75 (81.75)
Sept.	61.9 (61.5)	48.0 (47.3)	54.9 (54.4)	2.03 (3.77)	88.75 (85.5)
Oct.	56.3 (56.8)	44.8 (44.6)	50.5 (50.7)	1.26 (1.16)	88.75 (89.5)
Nov.	50.9 (45.9)	40.6 (37.0)	45.7 (41.5)	2.78 (2.10)	91.0 (91.75)
Dec.	40.3 (39.9)	32.5 (29.5)	36.4 (34.7)	1.05 (2.63)	91.0 (88.5)

VITAL STATISTICS

The number of live births registered during the year was 69; of these nine were illegitimate. One stillbirth was registered.

Details are given in the table below (the figures in brackets are the corresponding numbers for the previous year).

Live Births	Males		Females		Total	
Legitimate	29	(57)	31	(56)	60	(113)
Illegitimate	4	(6)	5	(3)	9	(9)
Total	33	(63)	36	(59)	69	(122)

Live Birth Rate

The crude live birth rate per 1,000 of the estimated population was 18.1 compared with a crude rate of 24.9 in 1962, 28.1 in 1961 and 31.2 in 1960. The corrected live birth rate (using a comparability factor of 0.80) was 14.5 compared with a live birth rate of 17.17 in the Administrative County of Norfolk, and 18.2 in England and Wales for 1963.

Illegitimate Births

There were nine illegitimate births. The percentage of illegitimate births to the total live births was 13.0% compared with 7.4% in 1962, 4.4% in 1961 and 3.0% in 1960.

Stillbirths

There was one stillbirth (male, legitimate) during 1963, giving a stillbirth rate per 1,000 total live and stillbirths of 14.3. The rate for the Administrative County of Norfolk was 16.52, and for England and Wales was 17.3 for 1963.

Infant Deaths

Two infants under one year of age (Male 3 days: Female 1 week) died in 1963, compared with one in 1962 and eight in 1961. One death was due to bilateral bronchopneumonia and the other to complete atelectasis.

Infant Mortality Rate

This is calculated as the number of infant deaths per 1,000 total live births, and for 1963 was 28.9 compared with 8.2 in 1962 and 58.8 in 1961. The infant mortality rate for 1963 in the Administrative County of Norfolk was 16.33, and in England and Wales was 20.9. True comparisons cannot be drawn due to the small number of deaths in the District.

As there were no illegitimate deaths, the legitimate infant deaths per 1,000 legitimate live births was 33.3 while the illegitimate death rate was zero.

Neonatal Mortality Rate

This is the deaths of infants under four weeks per 1,000 total live births. Both of the deaths of infants under one year were in infants under four weeks. The rate is, therefore, the same as for Infant Mortality Rate, i.e. 28.9.

Early Neonatal Mortality Rate

This is deaths of infants under one week per 1,000 total live births. One infant died under one week of age giving a rate of 14.5.

Perinatal Mortality Rate

This is the number of stillbirths and deaths of infants under one week of age per 1,000 total live and stillbirths. The rate for 1963 was 28.6.

True comparisons cannot be drawn due to the small numbers involved.

Maternal Mortality Rate

There were no maternal deaths in the District in 1963. The rate for England and Wales in 1963 was 0.28 deaths per 1,000 live births.

Deaths from all causes

The Registrar General has recorded the following deaths and they are classified under the 36 headings on the abbreviated list of International Statistical Classification of Diseases, Injuries and Causes of Deaths, 1955. Where the headings are not listed there were no deaths due to these causes.

Cause of Death	Sex	Total All Ages	Under 4 Weeks	Age in Years				
				35--	45--	55--	65--	75 & over
9. Other Infective and Para-	M	1	--	--	1	--	--	--
sitic Diseases.....	F	--	--	--	--	--	--	--
10. Malignant Neoplasm,	M	1	--	--	--	1	--	--
Stomach.....	F	1	--	--	--	1	--	--
11. Malignant Neoplasm, Lung,	M	1	--	--	--	--	1	--
Bronchus.....	F	--	--	--	--	--	--	--
14. Other Malignant and Lym-	M	1	--	--	--	--	1	--
phatic Neoplasms.....	F	2	--	--	--	--	1	1
16. Diabetes	M	1	--	--	--	--	--	1
.....	F	--	--	--	--	--	--	--
17. Vascular Lesions of Ner-	M	4	--	--	--	--	2	2
vous System.....	F	15	--	--	--	--	2	13
18. Coronary Disease, Angina	M	5	--	--	--	1	2	2
....	F	5	--	1	--	--	2	2
20. Other Heart Disease	M	1	--	--	--	--	--	1
.....	F	9	--	--	--	--	--	9
22. Influenza	M	1	--	--	--	--	--	1
.....	F	--	--	--	--	--	--	--
23. Pneumonia	M	--	--	--	--	--	--	--
.....	F	2	1	--	--	--	1	--
26. Ulcer of Stomach and	M	--	--	--	--	--	--	--
Duodenum.....	F	1	--	--	--	1	--	--
32. Other Defined and Ill-	M	2	1	--	--	--	--	1
Defined Diseases.....	F	1	--	--	--	--	1	--
34. All Other Accidents	M	1	--	1	--	--	--	--
.....	F	1	--	--	--	--	1	--
35. Suicide	M	1	--	1	--	--	--	--
.....	F	--	--	--	--	--	--	--
Total all Causes	M	20	1	2	1	2	6	8
	F	37	1	1	--	2	8	25

The total number of deaths at all ages in the District during 1963 was 57, compared with 72 in 1962. It is interesting to note that 57.9% of deaths were in people over 75 years.

Heart disease, with 20 deaths, caused 35.1% of all deaths. Coronary artery disease with 10 deaths gives a figure of 17.5% of all deaths while vascular lesions of the nervous system, with 19 deaths, was responsible for 33.3% of the total number of deaths.

If all deaths due to diseases of the heart and circulatory system (which includes vascular lesions of the nervous system) are combined, a figure of 39 deaths is given, causing 68.4% of all deaths in the District. These diseases are the biggest cause of death in the Country and more research is needed to find out the causes of high blood pressure, arterio-sclerosis, coronary thrombosis etc.

Cancer, with 6 deaths, gave a figure of 10.5% of deaths. One death from lung cancer was recorded.

Crude Death Rate per 1,000 estimated population	-	14.96
Corrected Death Rate (comparability factor 0.75) per 1,000 estimated population	-	11.22
Death rate for the Administrative County of Norfolk per 1,000 estimated population	-	11.23
Death rate for England and Wales per 1,000 estimated population.	-	12.20

SECTION II

COMMUNICABLE DISEASES

Thirteen cases of notifiable diseases were reported during 1963. Eight of these were due to measles, two to pulmonary tuberculosis, two to dysentery and one to food poisoning. In 1962 there were twenty five cases of notifiable diseases, the great majority of which were due to measles.

Measles

Eight cases of measles were reported, which is less than for last year (twenty three). They were registered in the following age groups:-

	Under 1	1 +	2 +	3+	4+	5 - 9	10 - 24	25 +	Total
Males	-	1	1	-	1	-	-	1	4
Females	-	-	1	-	-	3	-	-	4
Total	-	1	2	-	1	3	-	1	8

Dysentery

Two cases of *Shigella Sonnei* Dysentery were reported.

Both these cases were in a school. Nose and throat swabs from all staff, pupils and "outside" workers were taken but all proved negative.

Food Poisoning

One case of *Salmonella* Food Poisoning was notified.

Tuberculosis

Two new cases of pulmonary tuberculosis were reported and four transfers from other Districts - three pulmonary and one non-pulmonary.

The following table shows the number of cases on the Register at the end of 1963:-

	<u>Pulmonary</u>		<u>Non-Pulmonary</u>		<u>Totals</u>	
	Male	Female	Male	Female	Male	Female
Number of cases on Register at 31.12.63.	10 (10)	14 (13)	2 (1)	2 (2)	12 (11)	16 (15)
	24 (23)		4 (3)		28 (26)	

(Figures in brackets are those for 1962)

B.C.G. Vaccination

Protection against tuberculosis by the use of B.C.G. vaccination continued throughout 1963 and is given by the County Council. This protection is offered to all children on reaching the age of 13 years.

/Cont'd..

B.C.G. Vaccination - Cont'd

The following table shows the figures for St. Michael's and Hunstanton Secondary Modern School for the year 1963. (The figures in brackets are those for 1962).

School	Number due	Number accepted	Tested	Read	Positive	Neg.& vaccinated	Tuberculin Index
St. Michael's School.)	-	75	72	70	13	57	18.6%
Hunstanton Sec. Mod. School.)	153 (110)	137 (75)	127 (69)	127 (66)	3 (6)	119 (60)	6.3% (9.0)

The tuberculin index does not necessarily indicate tuberculous disease, as the resistance of the great majority of pupils is sufficient to overcome the invading organism; it does, however, indicate the degree of opportunity for invasion and is thus a useful index of infectious cases in a community.

Poliomyelitis

There were no cases of poliomyelitis in the District, or in the Administrative County of Norfolk, in 1963.

The following table shows the number of persons immunised against poliomyelitis during 1963 in Area 8 (which comprises Walsingham and Docking Rural Districts and Hunstanton and Wells Urban Districts). The immunisation procedures are given by the County Council; separate figures by Districts are not recorded.

Age Groups	
Children born in 1963	47
Children born in 1962	273
Children born in 1961	67
Children and Young Persons born 1943-60	46
Young Persons born in 1933-42	11
Adults born 1932 or before	34
Total	478

Re-inforcing doses (All Groups)

Number of persons given third injections Salk	56
Number of persons given dose of Oral after	
(i) 2 Salk injections	81
(ii) 3 Salk injections or	
3 Oral doses or	
2 Salk injections)	
2 Oral doses)	477
Total	614

Smallpox

There were no cases in the District in 1963. Vaccination procedures are given by the County Council.

The following table shows the number of vaccinations, by age groups, carried out in Area 8 and Hunstanton Urban District in 1963.

Age at date of Vaccination	Area 8		Hunstanton U.D.	
	Primary	Re-Vacc.	Primary	Re-Vacc.
0 - 3 months	14	-	2	-
3 - 6 "	21	-	4	-
6 - 9 "	15	-	2	-
9 - 12 "	47	-	4	-
1 year	88	-	6	-
2 - 4 years	26	9	4	2
5 - 14 "	13	26	-	7
15 or over	34	53	3	11
Total	258	88	25	20

Diphtheria, Whooping Cough and Tetanus

None of these diseases occurred in the District in the year under review.

Immunisation against these three diseases is given by the County Council and is usually commenced in infancy when the child is about three months old. It is mainly given as 'Triple Antigen' thus reducing the number of injections a child needs. The antigens given, combined in a single vaccine, produce a greater protection to each disease than they would if given separately.

The following table gives more information about immunisation against Diphtheria, Whooping Cough and Tetanus in Area 8, (Area 8 comprises Walsingham and Docking Rural Districts and Hunstanton and Wells Urban Districts) and the District in 1963.

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

NAME		DATE		TIME	
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

BORN	1963		1962		1961		1960		1959		1958-54		1953-1949		1948 +		TOTAL	
	Area	Dist.	Area	Dist.	Area	Dist.	Area	Dist.	Area	Dist.	Area	Dist.	Area	Dist.	Area	Dist.	Area	Dist.
TRIPLE	Initial	142	24	230	41	56	3	9	2	4	-	8	2	-	2	1	453	73
	Booster	-	-	5	3	39	9	37	2	15	1	20	4	-	1	-	117	19
DIPHTHERIA/ TETANUS	Initial	-	-	2	-	3	1	-	-	1	-	38	4	3	1	-	47	6
	Booster	-	-	-	-	2	-	4	-	5	-	189	5	9	2	-	209	7
DIPHTHERIA	Initial	-	-	-	-	-	-	-	-	-	-	3	-	1	-	-	4	-
	Booster	-	-	-	-	-	-	-	-	-	-	118	3	83	5	1	201	8
TETANUS	Initial	1	-	1	-	1	-	-	-	2	-	116	4	77	9	198	396	21
	Booster	-	-	-	-	2	1	1	-	7	4	26	6	26	18	47	109	50

DIPHTHERIA, WHOOPING COUGH AND TETANUS IMMUNISATIONS IN AREA 8 AND HULSTANTON URBAN DISTRICT
IN 1963.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	1491	1492	1493	1494	1495	14
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	----

REPORT ON FLUORIDATION OF WATER SUPPLIES

Introduction

Fluoride occurs naturally in almost all the world's water supplies, varying from a trace to 14 parts per million or more. In Gt. Britain the highest natural concentration is about 6 parts per million (p.p.m.)

It has long been known that there is a correlation between the incidence of dental caries and the level of fluoride naturally occurring in water supplies, and, where high levels occur, this increased resistance can be accompanied by noticeable mottling of the dental enamel. However, where the level is below $1\frac{1}{2}$ p.p.m., no mottling occurs.

In the United States, it has been found that children born and brought up in an area with almost 1 p.p.m. of fluoride occurring naturally in the water, have up to 60% less dental decay than similar children in an area where there is only a trace in the water. In addition, about 30% of the former children between 12 and 14 years have completely sound teeth and it is believed that this benefit persists well into middle age. These findings have been supported by investigations in many other countries.

In 1945, the Americans and Canadians commenced studies to see whether similar results would follow where the level was raised to 1 p.p.m. by adding fluoride to the water.

In 1952 a United Kingdom mission was sent to North America to study these experiments and to advise whether fluoride should be added to the supplies in the United Kingdom.

This mission found that results being obtained were similar to those found where the level of fluoride occurred naturally in the water. There was nothing to suggest that a water to which fluoride had been added was different in its action or had different properties from one containing natural fluoride. There was no evidence to suggest any danger to health from the prolonged consumption of water containing fluoride in low concentration and they found that millions of people were living in ordinary good health on waters containing fluoride at levels of 1 p.p.m. or more. The mission recommended that further studies should be carried out in this Country by adding fluoride to some water supplies.

Preliminary Work

In 1954 a study was undertaken to correlate the incidence of caries and mottling of the teeth with different levels of fluoride.

Four areas in which fluoride was naturally present in water supplies were selected as follows:-

	Fluoride content (p.p.m)
West Mersea (Essex)	5.8 (highest in U.K.)
Burnham on Crouch (Essex)	3.5
Harwich "	2.0
Slough (Buckinghamshire)	0.9

Groups of children aged 12 to 14 years were studied in these areas. Their teeth were examined in detail and carious lesions, fillings and enamel defects were recorded. To estimate the incidence of caries the D.M.F. index was used, that is the average number of decayed (D), missing (M due to caries) and filled (F) teeth.

The results were that in Slough, with 0.9 p.p.m. fluoride, the incidence of caries was as low as 2.6 D.M.F. teeth per child, 30% of the children were entirely free of caries and mottling was negligible.

In Harwich, with 2.0 p.p.m. fluoride, incidence of caries was lower still - 1.5 D.M.F. teeth per child but mottling of teeth began to be noticeable in about 1 in 8 of the children examined.

Similar groups of children were examined in Saffron Walden and district (Essex), Stoneleigh and Malden West (Surrey) where there is only a trace of fluoride in the water. In these areas the incidence of caries was 6.6 to 6.1 D.M.F. teeth per child and only 4.8% were caries free.

From these and other studies, it was decided that the level of fluoride at which maximum reduction of caries occurred without mottling, was about 1 p.p.m.

Comparisons made in 1954 of the vital statistics in the United Kingdom showed that, between high and low fluoride areas, there were no differences in the mortality rates which could be interpreted as indicating any harmful effects on health.

In 1956, a conference of experts convened by the Medical Research Council agreed that "despite considerable interest and research there is no definite evidence that the continued consumption of fluorides in water at a level of about 1 p.p.m. in drinking water is in any way harmful to health and that if any untoward effect is revealed by future research it is most unlikely to be serious."

Study Areas

It was decided to fluoridate the water supply of at least 3 communities and to establish a corresponding "control" area as nearly as possible comparable to each of the areas whose water supply was to be treated.

The areas selected were:-

(i) Watford in Hertfordshire with Sutton as its control. Both have a population of some 70 - 80,000, are within a few miles of London and are largely residential.

(ii) Kilmarnock with Ayr as its control, both mainly industrial with populations of about 43,000.

(iii) Part of the County of Anglesey with the remainder as its control - largely agricultural.

Dental examinations were commenced in each of the study and control areas in 1955 and have been repeated annually since.

Fluoridating began in Anglesey on 17th November, 1955, in Kilmarnock on 19th April, 1956, and in Watford on 15th May, 1956, and experience shows that the cost of fluoridation works out at about 10d. per annum per head of the population supplied.

Dental Findings

To be fully effective, fluoride must be absorbed continuously during the whole period of tooth formation and calcification. The teeth must then erupt and be exposed to the risk of caries for a reasonable period before any reliable assessment can be made of the extent of caries prevention.

For the few years that fluoridation has been in operation in the study areas, therefore, its full effect can now be observed only in children up to the age of 5 years. Some improvement might now also be expected in children who have had fluoride from birth or early childhood but little in older children who have not had the benefit of fluoride in their earlier years while their teeth were being formed.

In the tables below are given the findings for children aged 3 - 7 years. The assessment for children of 3 and 4 years is made on the full deciduous dentition (i.e. 20 teeth) whilst for children aged 5 to 7 years, it has been made only on the deciduous canines and molars (i.e. on 12 teeth) due to the uncertainty arising from the natural shedding of incisor teeth. The baseline is the date of commencement of fluoridation.

Average Number of Carious Teeth per Child

Children aged	Study Areas			Control Areas		Percentage Reduction
	Average number of carious teeth per child (D.M.F.)	Percentage reduction after adjustment for change in control areas.		Average number of carious teeth per child (D.M.F.)		
	Baseline	1961	Control cases	Baseline	1961	
3 years	3.80	1.29	64	3.53	3.32	6
4 years	5.39	2.31	54	5.18	4.83	7
5 years	5.81	2.91	47	5.66	5.39	5
6 years	6.49	4.81	24	6.32	6.22	2
7 years	7.06	6.05	11	7.08	6.89	3

Percentage of Children free from Caries

Children aged	Study Areas		Percentage Increase after adjustment for change in control areas.	Control Areas		Percentage Increase
	Percentage of children free from Caries			Percentage of children free from Caries		
	Baseline	1961		Baseline	1961	
3 years	32.5	60.5	79	37.9	39.3	4
4 years	22.2	42.0	44	20.6	26.9	31
5 years	8.1	30.9	165	8.4	12.1	44
6 years	6.2	14.0	56	5.8	8.4	45
7 years	4.0	7.7	53	4.8	5.4	26

Percentage of children with 10 or more carious teeth

Children aged	Study Areas		Percentage reduction (after adj. for change in control areas).	Control Areas		% Reduced
	Percentage of children with 10 or more carious teeth (D.M.F.)			Percentage of children with 10 or more carious teeth. (D.M.F.)		
	Baseline	1961		Baseline	1961	
3 years	14.9	1.7	88	14.2	13.2	7
4 years	21.4	3.6	83	19.0	19.0	Nil
5 years	14.6	1.6	87	13.6	11.5	15
6 years	17.4	8.8	45	16.4	15.2	7
7 years	21.4	15.4	27	22.5	22.1	2

It will thus be seen that children aged 3 years in 1955/56 had, on an average, 3.8 carious teeth, the average in 1961 for this age group was 1.29. Similarly this reduction is maintained in the 4 and 5 year old age group. Among the 6 and 7 year old age group a reduction also took place but not to the same extent, as some of the teeth in these age groups were already calcified before fluoridation began.

Overall, the proportion of children in the study areas free from caries, has been increased by about three quarters.

Further, the proportion of children in study areas with 10 or more carious teeth has been reduced by as much as six sevenths in the case of children aged 3 to 4 years.

Thus fluoridation has brought a substantial improvement in the dental condition of the deciduous teeth of children in the study areas, and there is good reason to believe that the longer term effects of fluoridation will equally be beneficial. In America, it has been found that among children up to 10 years of age, who have had fluoride for the whole of their lives, caries was reduced by more than 50% and the incidence of caries in these age groups reached almost the same low level as in an area where fluoride occurs naturally at the same concentration.

Safety of Fluoridation

No harmful effects from the addition of one part per million of fluoride to drinking water has been demonstrated in any of the extensive medical evidence collected and viewed by a Research Committee.

The World Health Organisation's Expert Committee on Water Fluoridation has also reported (in 1958), "The most convincing evidence of the safety of water fluoridation comes from the numerous populations (3 millions in U.S.A. and 0.5 millions in U.K.) who have drunk naturally fluoridated water containing 1 p.p.m. or more during their lifetime. In these groups water drinking has been, of course, uncontrolled and there have been well and ill babies, as well as healthy young adults and frail elderly people. Medical Practitioners and Specialists in these areas have never detected or defined a systematic aberration in health of any kind related to fluoride consumed."

Conclusions

(1) Five years of fluoridation at a level of 1 p.p.m in three study areas has brought about in each a substantial improvement in the teeth of young children.

(2) The results of fluoridation obtained so far are in line with American experience.

(3) No evidence of harm from fluoridation has been discerned despite continuous vigilance.

(4) The addition of fluoride to water supplies at a specified level has presented no technical difficulties.

SECTION IV

R E P O R T

of the

PUBLIC HEALTH INSPECTOR

THE JOURNAL OF THE

ROYAL SOCIETY OF MEDICINE

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

AND THE BRITISH MEDICAL JOURNAL

AND THE LANCET

SUMMARY OF INSPECTIONS AND VISITS MADE DURING THE YEAR 1963

Public Health Acts

Nuisances	45	
Water Supply	18	
Drainage	150	
Sanitary Conveniences	6	
Disinfestation of premises	<u>2</u>	221

Housing Acts

Disrepair	36	
Survey	24	
Unfit Houses	23	
Overcrowding	14	
Improvement Grants	<u>34</u>	131

Caravan Sites and Moveable Dwellings

Caravan and Camping Sites	119	
Caravans (not on licensed sites)	<u>23</u>	142

Council Houses

Repair and Maintenance	493	
External Painting	240	
Tenancy Matters	48	
Housing Estates	<u>49</u>	830

Food and Food Premises

Inspection of Premises	124	
Inspection of Stalls/Vehicles	8	
Ice Cream Premises	37	
Inspection of Meat and Foods	21	
Sampling of Foods	27	
Investigation of Suspected food		
Poisoning	2	
Dairies	<u>1</u>	220

Others

Rodent Control	73	
Insect Infestation	9	
Refuse - Storage, Collection and Disposal	75	
Factories Acts Administration	22	
Petroleum Stores	29	
Shops Act Administration	7	
Public Conveniences - Supervision	492	
Caravan Site Conveniences - Supervision	127	
Sea Front Cleansing	172	
Pet Animals Act Administration	1	
Allotment Gardens	<u>3</u>	1010

Total: 2554

NOTICES SERVED DURING THE YEAR 1963

	<u>No. of Notices served</u>	<u>No. of Notices complied with</u>
(a) <u>Informal</u>		
Public Health Acts, 1936-1961	50	48
Housing Acts, 1957-1961	7	7
Caravan Sites Act, 1960	4	4
Food and Drugs Act, 1955 and Food Hygiene Regulations, 1960.	11	8
Factories Act, 1961	3	2
Prevention of Damage by Pests Act, 1949.	1	-
(b) <u>Statutory</u>		
Public Health Act, 1936. Section 50.	2	-

WATER SUPPLY

The Council provided a piped mains supply of water throughout the District, the water being derived from shallow springs at Old Hunstanton, near the northern boundary of the District. It is chlorinated at the pumping station from where it is pumped to an elevated storage tower in the town and then distributed by gravitational mains.

The water pumping, storage and distribution installations are under the control of J.H.T. Rowland, M.I.Mun.E., A.M.I.E.E., A.M.P.H.E., the Council's Engineer, Surveyor and Water Engineer, who has provided the following information.

The amount of water pumped during the year 1963 was 99,200,000 gallons compared with 100,000,000 gallons in 1962. The monthly amount pumped varied from 11,291,000 gallons in August to 6,034,000 gallons in January compared with 11,476,000 gallons in August, 1962, and 5,910,000 gallons in December, 1962.

The average daily consumption during the peak week, 28th July to 3rd August, was 418,430 gallons.

The supply of water was sufficient to meet the requirements of the district.

Due to the extreme low temperatures which were experienced in January and February some 200 plumbing installations to dwellings were frozen and without a water supply. 133 services were defrosted by the Water Department working 7 days a week. During this period a system of daily water deliveries to affected premises was organized and water points were set up in isolated areas to further improve the position.

All mains were kept free of ice with the exception of a small diameter main in Glebe Avenue which had to be renewed.

No mains extensions were carried out during the year but extensions are proposed for 1964 to meet the requirements of further housing development on the Cliff Estate.

Eighteen inspections were made concerning water supply generally to houses during the year, this is exclusion of a large number of visits made during the big "freeze-up" during January and February.

Dwelling Houses and Population Supplied

	<u>No. of Houses</u>	<u>Population</u>
Direct to Houses	1494	3800
By Standpipe	7	10
	1501	3810

Bacteriological Quality

Twelve samples of water were submitted by the Engineer and Surveyor for bacteriological examination during the year; the results were as shown in the following table:-

<u>SAMPLES TAKEN</u>		<u>RESULTS</u>			
<u>Before Chlorination</u>	<u>After Chlorination</u>	<u>Excellent</u>	<u>Satisfactory</u>	<u>Suspicious</u>	<u>Unsatisfactory</u>
6	6	5	1	-	-
-	-	3	-	-	-

From this it will be seen that the water going into supply was bacteriologically satisfactory.

Chemical Analysis

The analyst's opinion on the last supply of water submitted for chemical analysis was as follows:-

"This water is of a very good organic quality and the chemical analysis as a whole shows no evidence of pollution. The total hardness is normal for East Anglian waters, there being about 20° Clark, of which approximately three-quarters is temporary. The reaction is practically neutral and the free carbon dioxide is moderately low so that this water would not be expected to have any serious corrosive action on metals. Apart from a trace of iron, other metals, such as lead and copper, are absent from the sample. The clarity, odour and taste are very satisfactory and, in our opinion, this water is very suitable for drinking and general purposes. The detailed mineral analysis does not disclose any unusual features."

Fluoride Content

The water contained no fluoride.

Hardness

The hardness of the water expressed as Ca.Co., in parts per million was recorded as:-

Total	285 parts per million
Carbonate (temporary hardness)	195 " " "
Non-carbonate (permanent hardness)	90 " " "

SEWERAGE AND SEWAGE DISPOSAL

In connection with the old Works there has been no change since 1962 but during the year the Storm Water Overflow for the Smugglers Lane Pumping Station at Old Hunstanton was completed and the pumping capacity of the Station has been increased by removing an obstruction in the pumping main. (Information supplied by the Council's Engineer & Surveyor).

DRAINAGE

Fifteen premises and part of three other premises in the District are drained to septic tanks or cesspools on account of levels or distance making it impractical to drain to the public sewer.

The tanks or cesspools serving fifteen premises were emptied during the year by a contractor employed by the Council.

One hundred and fifty inspections were made concerning drainage of premises and as a result of informal action taken defects were remedied in thirty-one cases.

Statutory notices were served on the owners of two houses requiring the execution of works to abate nuisance from effluent overflowing from a cesspool.

REFUSE COLLECTION AND DISPOSAL

A weekly collection of house refuse was made throughout the year. Refuse from hotels, food and business premises was collected weekly during the winter and as frequently as four times weekly during the summer holiday season, the frequency of collection varying according to the volume and nature of the refuse produced.

/Cont'd.....

REFUSE COLLECTION AND DISPOSAL - Cont'd.

Two vehicles were employed on refuse collection; one (an 18 cubic yard capacity, rear loading, gravity packing type with a crew of four men) was employed whole time throughout the year, mainly on collection from domestic premises. The second vehicle (a 7 cubic yard side-loading type) was replaced in July, after having been in service over ten and a half years, by a new 10 cubic yard side-loading type vehicle. This vehicle, manned by a crew of two men, was employed whole time throughout the summer, chiefly on collection from hotels, food and business premises, the sea-front, car parks and caravan sites; in the winter it was used as a "relief" collector when required.

The volume of refuse continued to increase during the year, partly due to the reoccupation of dwelling accommodation vacated by American Servicemen the previous year and to the opening of new business premises, but the biggest factor was the increase in use of non-returnable containers and wrappings from pre-packaged goods. The Council resolved to purchase a refuse trailer in the next financial year for use with the smaller truck to help cope with bulky, light materials.

Refuse disposal was by semi-controlled tipping in a disused chalk pit at Thornham, in the adjoining Rural District of Docking.

Seventy-five inspections were made in connection with the storage, collection and disposal of refuse.

NUISANCES

Forty-five inspections were made for the purpose of investigating complaints of nuisance and securing the abatement of nuisances. Most cases concerned accumulations of junk and refuse; more unusual were (1) a case of insanitary premises used for human habitation, (2) flooding of a basement due to a defective drain and (3) a suspected seepage of petroleum fumes from a petrol station into a dwelling.

These last mentioned three cases were among twelve nuisances which were abated as a result of informal action.

HOUSING

(a) General

One hundred and thirty-one inspections were made of houses during the year.

Defects were remedied by the owners of thirty-eight houses as a result of informal action taken.

No cases of statutory overcrowding were found.

As a result of formal action taken by the Council under the Housing Acts, 1957, one unfit house was demolished; Closing Orders were made in respect of three other unfit houses and the owner of a further house gave an Undertaking not to use the house for human habitation. The occupants of one of the houses were rehoused by the Council.

(b) Improvement Grants

Thirty-four inspections were made of houses concerning improvement with grant aid.

The numbers of dwellings in respect of which applications for grant were received and approved during the year were as follows:-

	<u>Received</u>	<u>Approved</u>
<u>Discretionary Grants</u>		
Conversions	1	Nil
Improvements	Nil	Nil
<u>Standard Grants</u>	3	6
Owner/occupied	--	3
Others	--	3

HOUSING - Cont'd

(c) New Houses

Eleven new dwellings, built by private enterprise, were completed during the year.

(d) Council Houses

Work was commenced on the erection of sixteen one-bedroomed type flats, intended for housing aged persons in Lincoln Square during the year; four of these were completed and occupied at the end of the year.

The Council purchased ten semi-detached, three bedroom type houses, adjoining the Hill Street Housing Estate, during the year.

The number of units of housing accommodation provided for general housing needs by the Council was 177 made up as follows:-

(a) Houses with 2 bedrooms	.....	64
(b) " " 3 "	.....	74
(c) " " 4 "	.....	2
(d) Bungalows with 1 bedroom	.....	12
(e) " " 2 "	.....	5
(f) Flats " 1 "	.....	16
(g) " " 2 "	.....	4
		177

The bungalows at (d) and (e) and twelve of the flats at (f), a total of twenty-nine units, are intended for occupation by aged persons.

The Council owns a further three houses, all erected before 1939, which are used to accommodate employees.

Works of repair and maintenance, other than external repainting, were carried out by direct labour. The abnormally cold weather in January and February necessitated much more attention than normal but the actual damage to the properties was comparatively small having regard to the severity of the frosts.

Twelve houses and eight flats were repainted externally by Contractors.

The number of visits to Council houses during the year was greater than normal due to inspection for frost damage, repairs following frost damage, an increased number of changes of tenants and the tenanting of and works on the additional houses acquired.

CARAVAN SITES, CARAVAN AND CAMPING GROUNDS

One of the five privately operated caravan sites ceased to be used as such but a new and bigger site was commenced and part opened during the year. All five licensed sites and two operated by the Council are in the southern part of the district and are all "holiday" sites, the caravans being permitted to be occupied from March to October only. The combined capacity of the sites, when the latest is fully operational, will be 1,255 caravans.

One block of conveniences on the Council's caravan sites was extended during the year to provide shower baths, laundry facilities and additional sanitary conveniences.

As a result of informal action taken the licensees of two sites had works carried out to provide shower baths, laundry facilities and fire fighting equipment as required by the conditions attached to the site licences issued by the Council under the Caravan Sites and Control of Development Act, 1960.

CARAVAN SITES, CARAVANS AND CAMPING GROUNDS .. Cont'd.

Observation was kept on two plots of land, adjacent to one of the caravan sites, which were used intermittently as tented camping sites during the holiday season, to ensure that no infringement of the Public Health Act, 1936, Section 269, occurred.

A survey made during August Bank Holiday Week showed that there were 1,003 caravans stationed and 54 tents pitched in the district at that time.

A number of cases occurred of caravans being stationed for short periods during the holiday season on undeveloped building sites, car parks and other land; in all cases a verbal warning sufficed to secure removal of the caravans.

FOOD PREMISES, FOOD, MEAT AND MILK

(a) Food Premises

One hundred and twenty-four visits were made to food premises and eight inspections made of vehicles for the purpose of ensuring that the provisions of the Food and Drugs Act, 1955 and the Food Hygiene (General) Regulations, 1960 were being observed. Warning was given in eleven cases regarding failure to observe relevant requirements and was sufficient to secure compliance by the occupiers of the premises and food handlers concerned.

There were some changes in food premises during the year, a small number ceased to be used as such while a number of new premises came into use, consequently there was little change in the total number which was, excluding private hotels, guest houses and boarding houses, as follows:-

Grocery and Provisions ..	19	Bread and Bakers' Confectionery ..	3
Fruit and Greengrocery ..	6	Sweets and Confectionery	11
Butchery	5	Licensed Premises	18
Fishmongery.. .. .	2	Restaurants and Cafes	22
Shellfish	1	Refreshments and Ice Cream	11
Fried Fish and Chips ..	7	Mineral Water Manufacturers	1
Bakehouses	2	Beer Bottling	1
School Canteens	3	Dairies	2

(b) Food Inspection

Upon inspection the following foodstuffs were found to be unfit for sale for human consumption and were voluntarily surrendered by the owners for disposal:-

Canned Meats	44lbs. 14oz.	Canned Fruits	72lbs. 0oz.
Frozen Fish	27lbs. 14oz.	Frozen Vegetables	60lbs. 3oz.
Ice Cream	32 tubs	Ice Lollies	24.

(c) Meat Inspection

There are no licensed slaughterhouses in the District.

Inspection was made of meat and offal at butcher's shops from time to time, the following was found to be unfit for human consumption:-

14 lbs English Pork.

No evidence of tuberculosis or cysticercus bovis was found in meat examined.

/Cont'd.....

FOOD PREMISES, FOOD, MEAT AND MILK .. Cont'd

(d) Manufacture of Sausages and Preserved Foods

Five premises, all being part of butcher's shops are registered by the Council under Section 16 of the Food and Drugs Act, 1955 for the preparation or manufacture of sausages and other meat products.

These were inspected when the shops were visited.

(e) Ice Cream

Thirty premises are registered by the Council under Section 16 of the Food and Drugs Act, 1955 for the sale of ice cream and four for the manufacture and sale of ice cream; ice cream is also sold at a considerable number of restaurants and hotels which are not required to be registered for that purpose.

The growing public demand for "soft" ice cream is reflected in the number of premises newly registered for the purpose of manufacture and also in the number of mobile shop type ice cream vans which came into the district during the year.

Two vans were found not to comply with the requirements of the Food and Drugs Act, 1955 and the Food Hygiene Regulations, 1960. Written warning was given to the owners and served to secure compliance.

Sixteen samples of ice cream and four of ice lollies were taken and submitted to the Public Health Laboratory for bacteriological examination, the results were as follows:-

<u>Type of Ice Cream</u>	<u>Provisional Grade</u>			
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>
Hard Frozen	6	-	-	-
Soft	8	1	-	1
Ice Lollies	4	-	-	-

In both cases where the standard was below Grade I an investigation was made and further samples taken, the "repeat" samples were Grade I.

In the case of the Grade IV sample the cause was traced to improper usage of the machine, and following consultation the occupier of the premises gave instructions to the staff as to the precautions to be taken.

(f) Shellfish

Following incursions by starfish during the previous season and the severe winter the cockle beds on the South Beach were so depleted as to make it uneconomic to collect cockles for sale.

The collection of mussels for sale from the beds off the North Beach continued, fourteen samples were collected and submitted for bacteriological examination, the results were as follows:-

Satisfactory 11 Suspicious 3

/Cont'd.....

(g) Milk and Dairies

There are no milk bottling establishments in the District, all milk sold being pasteurised and bottled outside the District.

An innovation during the year was the introduction of homogenised milk; this was not universally popular, many consumers preferring to be able to see the cream line in the bottles.

Two premises are registered as dairies by the Council under the Milk and Dairies (General) Regulations, 1959. Four distributors sold milk in the District and milk was sold in unopened containers at a number of shops.

RODENT CONTROL

One employee of the Council, primarily employed on other duties, acts as part-time Rodent Operator.

During the year 54 notifications of infestation by rats or mice were received and in addition 3 infestations were found as a result of inspection of premises.

The number of infested premises treated was 53 and the combined total number of inspections and reinspections carried out by the Public Health Inspector and Rodent Operator was 439.

Treatment of selected sections of public sewers was carried out in the autumn, the extent and degree of infestation was found to be comparatively small.

FACTORIES

There is little industrial development within the District, most of the factories are associated with the building industry or motor repairing. A new printing works opened during the year and for a short period three premises were used for the preparation of vegetables for "Deep-freezing."

The prescribed particulars on the administration of the Factories Act, 1961 are given in tabular form at the end of the report as required by the Minister of Labour.

PUBLIC SWIMMING POOL

The Council has provided an open air Swimming Pool on the sea-front which is filled with sea water, which is constantly circulated for filtration, aeration and chlorination when the pool is open for use by the public.

The Council's Engineer and Surveyor is responsible for the maintenance of the pool.

A sample of water, taken from the pool for bacteriological examination at the Public Health Laboratory, was found to be satisfactory, there being no coliform organisms present and a plate count test gave a nil reading.

PUBLIC CONVENIENCES

A new block of public conveniences, on the Cliff Car Park, was opened during the season, replacing older and inadequate conveniences adjoining the lighthouse. The total number of blocks of conveniences provided, thus remained the same, i.e. seven, six of which are spaced out along the sea front and the seventh is in a central position near the 'bus station.

During the year hand rinse basins were installed in three older blocks so that all conveniences now have hand rinsing facilities.

PUBLIC CONVENIENCES -- Cont'd

New gas-operated water heaters were installed in the older of the two blocks at which "Wash and Brush-Up" facilities are available during the holiday season.

Seasonal workers were employed as cleaners and attendants at the public conveniences and as cleaners at the three blocks of conveniences on the Council's caravan sites.

Frequent inspections were made of all conveniences to ensure that a satisfactory standard of cleanliness, repair and decoration was maintained.

Turnstiles were removed from four conveniences at the end of the year to comply with the requirements of the Public Lavatories (Turnstiles) Act, 1963.

SEA FRONT CLEANSING

Seasonal workers were employed from Spring to Autumn on cleansing of the foreshore, promenade, greens, gardens, cliffs, car parks and Council caravan sites.

Some trouble was experienced due to deliberate breaking of glass bottles on the beach and to interference with litter baskets by irresponsible persons.

Regular inspections were made to supervise the work and to ensure that a satisfactory standard of cleanliness was maintained.

Appendix

Factories Act, 1961

Annual report for 1963 under Section 153 (1) of the Factories Act, 1961.

Part 1 of the Act

- (1) Inspections for the purposes of provisions as to health (including inspections made by Public Health Inspectors).

Premises	Number on Register	Inspections	Number of Written Notices	Occupiers prosecuted
(1)	(2)	(3)	(4)	(5)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are enforced by Local Authorities.	3	3	1	--
(ii) Factories not included in (i) in which section 7 is enforced by Local Authority.	18	12	--	--
(iii) Other Premises in which Section 7 is enforced by Local Authority (excluding outworkers premises).	15	7	2	--
Total	36	22	3	--

Number of Cases in which defects were found. Particulars	Found	Remedied	Referred		Number of Cases in which prosecutions were instituted
			To H.M. Inspector.	By H.M. Inspector.	
(1)	(2)	(3)	(4)	(5)	(6)
Ineffective drainage of floors (S6)	--	--	--	--	--
Sanitary Conveniences (S7)					
(a) Insufficient.	2	2	--	--	--
(b) Unsuitable or defective.	1	--	--	--	--
(c) Not separate for sexes.	--	--	--	--	--
Other Offences against the Act (not including offences relating to Outwork).	--	--	--	--	--
Total	3	2	--	--	--

Part VIII of the Act

OUTWORK

-- No notification was received of any outworkers within the District.